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EXAMINER ZETTL, MARY E				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/567,234

**Applicant(s)**

YONEDA ET AL.

**Examiner**

MARY ZETTL

**Art Unit**

2875

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7-14, and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-14, and 16-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the respective plurality of optical fibers of the two optical fiber bundles bent in opposite vertical directions and overlap with each other at a portion between the respective light introducing end portions and the respective light irradiating end portions of the two optical fiber bundles as claimed in claim 20, the half-circular lens as claimed in claim 21, and the Fresnel lens as claimed in claim 22 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 21 is objected to because of the following informalities: claim 21 depends on claim 20 and claim 20 claims the cross-section to be of circular form whereas claim 21 claims the cross-section to be of half-circular form. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 10, 11, 13, 16, 18, and 19, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conzola et al. (US 5,185,638 A) in view of Windross (US 5,222,794).

Regarding claim 1, Conzola et al. teaches a line light irradiation device comprising: multiple light emitting parts each of which is provided with an optical fiber band and a columnar lens (30 and 31) wherein the optical fiber band comprises a light irradiating part formed by arranging light leading out end portions of multiple optical

fibers (25) in a straight line (shape of outer surface of 20; Figure 9) or in multiple straight lines and a binding part (outer surface of 20) formed by binding light introducing end portions of the optical fibers and portions of the multiple optical fibers between the light irradiating part and the binding part are formed as a sheet form (sheet form, according to the definition of sheet in Merriam Webster's Collegiate dictionary, as a portion of something that is thin in comparison to its length, the fibers together are arranged in sheet form due to 20 see figure 10) and the columnar lens is arranged to extend along a direction of the straight line in front of the light irradiating part in pairs (see Figure 12), and that irradiate line light that converges into the straight line; and

a holding body (col. 8, lines 32-36) that is arranged to face an object on which the straight line light is to be irradiated, on which a monitoring bore (hollow part of item 20, that accommodates the fiber optics) is arranged to penetrate in order to monitor the object, the holding body holding the light emitting parts (col. 8, lines 31-36) so that each optical axis face of the line light irradiated from each of the light emitting parts crosses on a predetermined straight line. Conzola et al. further teaches two identical fiber optic bands (one item 20 on the left side in Figure 9 and one in the identical item on the right side) being mounted with their front and back sides turned upside down (orientation of item 20 arbitrarily taken to be upside down) in the holding body so that the location of each adjacent binding part (20; Figure 9) is different (item 20 on left side in a different location than item 20 on the right side; Figure 9); wherein the light emitting parts are of the same form (optical fibers are same shape and columnar lens both have translucent properties, therefore these components are considered to be of the same form.

Conzola et al. teaches predetermined lengths of the multiple optical fiber bands (25) being made to be different (Figure 10).

Conzola et al. does not teach the binding part being located to deviate to either one of two directions with respect to the center line of the light irradiating part.

Windross teaches a fiber optic illuminating device including a columnar lens (20), wherein predetermined lengths of the multiple optical fibers (14) of the optical fiber band (Figure 1) are made to be different so that the binding part (12; fiber optic cable serves to bind individual fiber optics together) is located to deviate to either one of two directions with respect to a center line of the light irradiating part (around 18).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Conzola et al. such that the binding part was of the type that is located to deviate from either one of two directions with respect to the center line of the light irradiating part as taught by Windross such that the location of the binding part was no longer restricted to the center position and is located in a position that saves space and allows easy access to the light source.

Conzola teaches multiple light sources (col. 4, lines 58-59).

Conzola and Windross do not teach multiple light sources being arranged along the direction of the straight line on the holding body.

Shifting the location of an element would not have modified the operation of the device. In re Japke, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the light sources of Conzola and Windross such that

they were arranged along the direction of the straight line on the holding body, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the light sources for the purpose of providing an orderly assembly of light sources that eased maintenance and replacement processes.

Regarding claim 2, Conzola et al. teach each light emitting part being arranged on a holding body so that the optical axis of the light irradiated from each light emitting part is arranged radially viewed from the above-mentioned direction of the line (Figure 9).

Regarding claim 3, Conzola et al. teaches the columnar lens (one of the plurality of columnar lens; col. 8, line 55) being arranged generally on a straight line viewed from the above-mentioned direction of the line (see Figure 12).

Regarding claim 4, Conzola et al. teaches a pair of pinching plates (i.e. opposite faces of item 20, Figure 10, making up pairs of plates), the pinching plates hold the light leading out end portions of the multiple fibers by pinching them between the pair of pinching plates.

Regarding claim 10, Conzola et al. teaches the multiple light emitting parts (col. 4, lines 58-68) being arranged serially along the above mentioned direction of the straight line (Figure 9).

Regarding claim 11, Conzola et al. teach each length of the light emitting part being identical (Figure 9).

Regarding claim 13, Conzola et al. teach a line light irradiation device comprising: a light source (col. 8, line 27); multiple light emitting parts, each of which is provided with a light irradiating part where multiple optical fibers (25) with light introducing end portions are bundled and aligned with the light source, and arranged in a line with light leading out end portions of the respective multiple optical fibers for forming a straight line of a predetermined width (Figures 10 and 12), and portions of the multiple optical fibers between the light introducing end portions and the light leading out portions are formed as a sheet form (sheet form, according to the definition of sheet in Merriam Webster's Collegiate dictionary, as a portion of something that is thin in comparison to its length, the fibers together are arranged in sheet form due to 20 see figure 10) a plurality of columnar lens (27; Figure 10), each arranged to extend along a direction of a respective line in front of each of the light irradiating parts, and to converge light onto a straight line (Figure 8); wherein the light emitting parts are of the same form (optical fibers are same shape and columnar lens both have translucent properties, therefore these components are considered to be of the same form); a



holding body (col. 8, lines 32-36) that is arranged to align with an object on which line light is to be irradiated, including a monitoring bore (hollow portion of 20 that accommodates fiber optics, 25) arranged to enable a monitoring of the object (by allowing a passage for the light traveling means), the holding body holding the light emitting parts (col. 8, lines 31-36) so that each optical axis of light irradiated from each of the light emitting parts crosses at a predetermined straight line, and binding parts (20) that are formed by binding each of the respective light introducing end portions of the optical fibers wherein the lengths of the optical fibers are different (Figure 10).

Conzola et al. further teaches the respective adjacent binding parts (outer surface of 20) being configured to alternate in deviation (leaned in different directions; Figure 9) to enable adjacent optical fibers to spread into linear arrays that are turned upside down from each other to provide a stacked compact configuration (see Figure 10; wherein optical fibers, 25 are considered to be stacked on top of each other and arbitrarily oriented upside down from each other).

Conzola et al. and Windross not teach the optical fibers being bound in a substantially cylindrical form.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have bound the fiber optics in a substantially cylindrical form, since it has been held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in the art when the change in shape is not significant to the function of the combination. Further, one would have been

motivated to select the shape of a cylinder for the purpose of being mateable with other cylindrical parts. See *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966).

Conzola et al. do not teach the binding part being located to deviate to either one of two directions with respect to the center line of the light irradiating part.

Windross teaches a fiber optic illuminating device including a columnar lens (20), wherein predetermined lengths of the multiple optical fibers (14) of the optical fiber band (Figure 1) are made to be different so that the binding part (12; fiber optic cable serves to bind individual fiber optics together) is located to deviate to either one of two directions with respect to a center line of the light irradiating part (around 18). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Conzola et al. such that the binding part was of the type that is located to deviate from either one of two directions with respect to the center line of the light irradiating part as taught by Windross such that the location of the binding part was no longer restricted to the center position and is located in a position that saves space and allows easy access to the light source.

Conzola teaches multiple light sources (col. 4, lines 58-59).

Conzola and Windross do not teach multiple light sources being arranged along the direction of the straight line on the holding body.

Shifting the location of an element would not have modified the operation of the device. In *re Japkse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

Cozola and Windross do not teach multiple light sources being arranged along the direction of the straight line on the holding body.

Shifting the location of an element would not have modified the operation of the device. In re Japkse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the light sources of Conzola and Windross such that they were arranged along the direction of the straight line on the holding body, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the light sources for the purpose of providing an orderly assembly of light sources that eased maintenance and replacement processes.

Regarding claim 16, Conzola et al. teach a cylindrical rod lens (Figure 11; col. 8, line 55) aligned with each of the light emitting ends of the optical fibers of each of the multiple light emitting parts to form the line of light on the predetermined surface.

Regarding claim 18, Conzola et al. teach one light source for each multiple light emitting part (fiber optic line converter; col. 4, lines 58-68), at least two multiple light emitting parts are connected to opposite ends of the holding body (opposite taken to mean left and right) and the light leading out end portions being positioned to extend parallel to the respective ends of the holding body.

Conzola et al. and Windross do not teach the shape of the holding body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the body into a rectangular shape, since it has been

held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in the art when the change in shape is not significant to the function of the combination. Further, one would have been motivated to select the shape of a rectangle for the purpose of creating a standard and simple shape that is easy to manufacture. See *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 19, Conzola et al. teaches the holding body (mechanical body) including a bracket member (spring loaded pivoting bracket; col. 8, lines 34-36) mounting at least one of the binding parts, the bracket member being pivotably mounted in the holding body to enable a rotational movement of the mounted binding part to move the line of light of the mounted binding part from a position exterior of the rectangular body (i.e. light output exterior to the holding body will be moved; col. 8, lines 31-49).

4. Claims 7, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conzola et al. (US 5,185,638 A) and Windross (US 5,222,794) as applied to claims 1 and 13 above and further in view of Biard (US 5,148,303 A).

Regarding claims 7, 14, and 17, Conzola et al. and Windross do not disclose expressly an LED light source.

Biard et al. teaches a fiber optic device utilizing LEDs (Abstract; Table 1).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to have modified the invention of Conzola et al. and Windross such that

LEDs as taught by Biard were utilized since it is well known that LEDs consume less power, are longer lasting, and are more rugged than other light sources.

Biard et al. further teaches using a power LEDs with current flow greater than or equal to 200mA (col. 5, Table 1).

At the time the invention was made, it would have been further obvious to one of ordinary skill in the art to have utilized a power LED in the invention of Conzola et al. and Windross such as that taught by Biard et al. in order to enhance the desired light output characteristics.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conzola et al. (US 5,185,638 A) and Windross (US 5,222,794) as applied to claim 1 above and further in view of Marcus et al. (US 5,596,409 A).

Regarding claim 8, Conzola et al. and Windross do not disclose expressly the irradiation device having the capability of varying the distance between the light irradiating part and the columnar lens being adjustable.

Marcus et al. teach a device for measuring physical properties of an object, the device including a lens and optical fibers; wherein the distance between the lens and the optical fibers is variable (col. 19, lines 14-27).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Conzola et al. and Windross such that the distance between the optical fibers and the lens is variable in order to

increase the range of object feature sizes and the size of the surface area that is analyzed.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konzola et al. (US 5,185,638 A) and Windross (US 5,222,794) as applied to claim 1 above and further in view of Wack et al. (US 6,782,337 B2).

Regarding claim 9, Konzola et al. appears to illustrate (Figure 9) means for rotating the device, however neither Konzola et al. nor Windross discuss such rotational means expressly.

Wack et al. teach a device for monitoring defects including a light source that rotates around a rotational axis (col. 37, lines 40-45) and the rotational angle is at a fixed position.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Konzola et al. and Windross such that the light source was rotatable as taught by Wack et al. as a means for detecting more defects by providing more viewing angles.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konzola et al. (US 5,185,638 A) and Windross (US 5,222,794) as applied to claim 1 above and further in view of Poffenbarger (US 5,953,113 A).

Regarding claim 12, Konzola et al. and Windross not disclose expressly a light source being arranged for each of the light irradiating parts individually.

Poffenbarger teaches a device for detecting defects including fiber optics with individual LEDs (col. 3, lines 54-56).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Conzola et al. and Windross such that individual light sources were provided as taught by Poffenbarger in order to increase the brightness of output illumination.

8. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmen et al. (US 6,757,058 B1) in view of Windross (US 5,222,794).

Regarding claim 20, Carmen et al. teaches a line light irradiation device comprising:

- a light source (62);

- a holding body (32);

- two optical fiber bundles (46; Figure 5) each formed by binding light introducing end portions of a plurality of optical fibers together into a cylindrical shape (Figure 5) with a binding part (66) and arranging light irradiating end portions of the plurality of optical fibers adjacent to each other and spread into a sheet form (see Figure 5; and col. 3, thousands of fibers spread together forming the sheet form), the two optical fiber bundles are positioned parallel and adjacent to each other (Figure 5; col. 3, lines 52-55) within the holding body and operatively positioned to receive light from the light source, each respective binding part (66) of the two optical fiber bundles is positioned off center with respect to a mutual center line of the respective light irradiating end portions of the

two optical fiber bundles (Figure 5), each respective binding part of the two optical fiber bundles is positioned on an opposite side of the mutual center line with respect to the other optical fiber bundle, and

Carmen et al. teaches a substrate (64) that receives light emitting end portions of the optical fibers (Figure 5).

Carmen et al. does not disclose expressly means for focusing a line of light consisting of a single type of three-dimensional cylindrical columnar lens with a cross-section of a circular form.

Windross et al. teaches a fiber optic illuminating system being used in conjunction with a means for focusing a line of light consisting of a single type of a three-dimensional cylindrical columnar lens (20) with a cross-section of a circular form (20).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to have modified the invention of Carmen et al. such a means for focusing light, the means being in the form of a circular lens was provided as taught by Windross et al. such that the efficiency of the device was increased by only directing the light where needed.

Carmen et al. and Windross et al. do not disclose expressly the respective plurality of optical fibers of the two optical fiber bundles bend in opposite vertical directions and overlap with each other at a portion between the respective light introducing end portions and the respective light irradiating end portions of the two optical fiber bundles.



Shifting the location of an element would not have modified the operation of the device. *In re Japkse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the fiber optic bundles of Carmen and Windross et al. such that they were bent in opposite vertical directions and overlap with each other at a portion between the respective light introducing end portions and the respective light irradiating end portions of the two optical fiber bundles, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the optical fiber bundles for the purpose of minimizing the size of the device.

Regarding claim 21, Carmen and Windross et al. do not disclose expressly the columnar lens having a half-circular form.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to the shape of the columnar lens a half-circular form, since it has been held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in the art when the change in shape is not significant to the function of the combination. Further, one would have been motivated to select the shape of a half-circular form for the purpose of producing the similar light output characteristics when compared to a circular form, but at the same time reducing the amount of necessary material for the lens. See *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 22, Carmen and Windross et al. do not disclose expressly the columnar lens being a Fresnel lens.

An "obvious to try" rationale may support a conclusion that a claim would have been obvious where one skilled in the art is choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. "[A] person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely that product [was] not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103." KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1397 (2007). Also see MPEP 2154 X.

Therefore it would have been obvious to try a Fresnel lens for the columnar lens in the invention of Carmen and Windross et al. since use of a Fresnel lens is well within the grasp of one of ordinary skill in the art.

### ***Response to Arguments***

9. The following is in response to the arguments filed on June 10, 2008.

On page 11, the applicant has argued that Conzola does not disclose that "the multiple light emitting parts are of a same form." The expression "same form" is vague and with reasonable interpretation "same form" may refer to objects being same in material, color, shape, etc.

More specifically the applicant argues near the bottom of page 13, that "*Conzola* uses two different types of lenses to emit light, and thus all of the light emitting parts of *Conzola* are not in the same form." As previously mentioned "same form" is vague. In this instance, both lens are considered to be of the "same form" in that they are all transparent and of roughly the same length (Figure 12).

In the second paragraph on page 12, the applicant argues that "*Conzola* does not disclose that "the multiple light sources are arranged along the direction of the straight line on the holding body." The examiner agrees that *Conzola* lacks this feature, however points out that arranging the light sources along the direction of the straight line on the holding body involves a mere rearrangement of parts.

On page 13, the applicant has argued that *Conzola* does not disclose that "portions of the multiple optical fibers between the light irradiating part and the binding part are formed as a sheet form." According to Merriam-Webster's Collegiate Dictionary Tenth Edition a sheet is defined as *a portion of something that is thin in comparison to its length*. The optical fibers of *Conzola* together make up a sheet form (Figure 10) according to the definition provided.

On page 14, the applicant has argued that there would be no motivation to combine the teachings of *Conzola* and *Windross* since *Conzola* is directed towards an inspection device and *Windross* is directed towards a vehicle headlamp. The examiner points out that both utilize the same means for delivering light, i.e. fiber optics and therefore one of ordinary skill in the art would like to both inventions regardless of their intended use. Furthermore in regard to the argument against the motivation to

combine, even though *Conzola* is directed to an inspection apparatus a reduction in size of the apparatus would be beneficial since the apparatus would take up less space and since it would weigh the installation of it would be easier.

In the last paragraph on page 14, the applicant argues that "replacing the collimator lens array and focusing lens in *Conzola* with the single cylindrical lens of *Windross* would interfere with the light capturing properties of *Conzola*." Without dealing with the merits of this statement the examiner does not see where in the office action replacing the collimator lens array and the focusing lens was suggested.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

On page 18, the applicant has argued that *Windross* does not teach a circular lens since the lens of *Windross* is modified with additional pieces. The examiner points out that the lens (20) itself is still circular and therefore *Windross* teaches the use of a lens with a circular shape.

**Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Asada et al. (US 5,251,280 A) teaches the use of optical fiber bands with a line light irradiation device.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is 571-272-6007. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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MZ  
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